

FIG. 2

FIG. 3

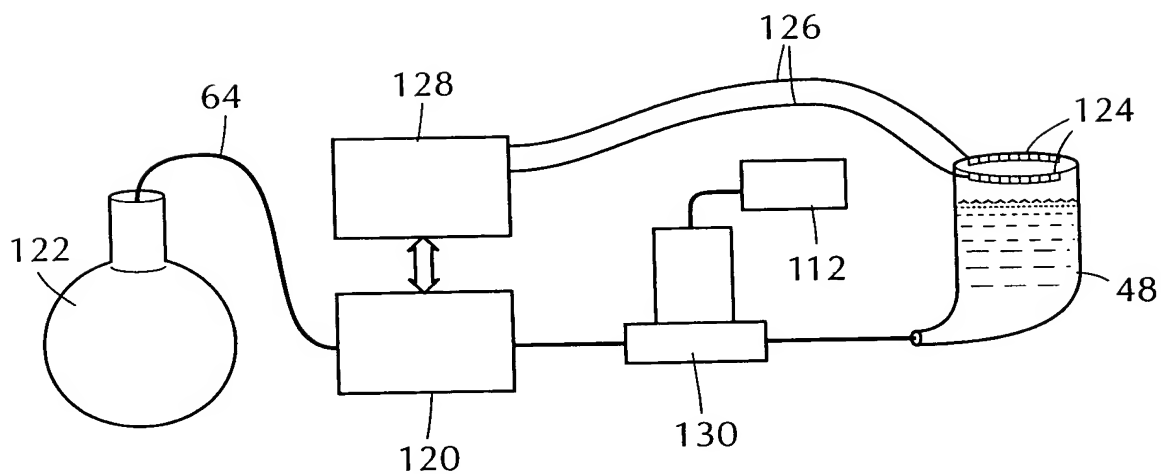
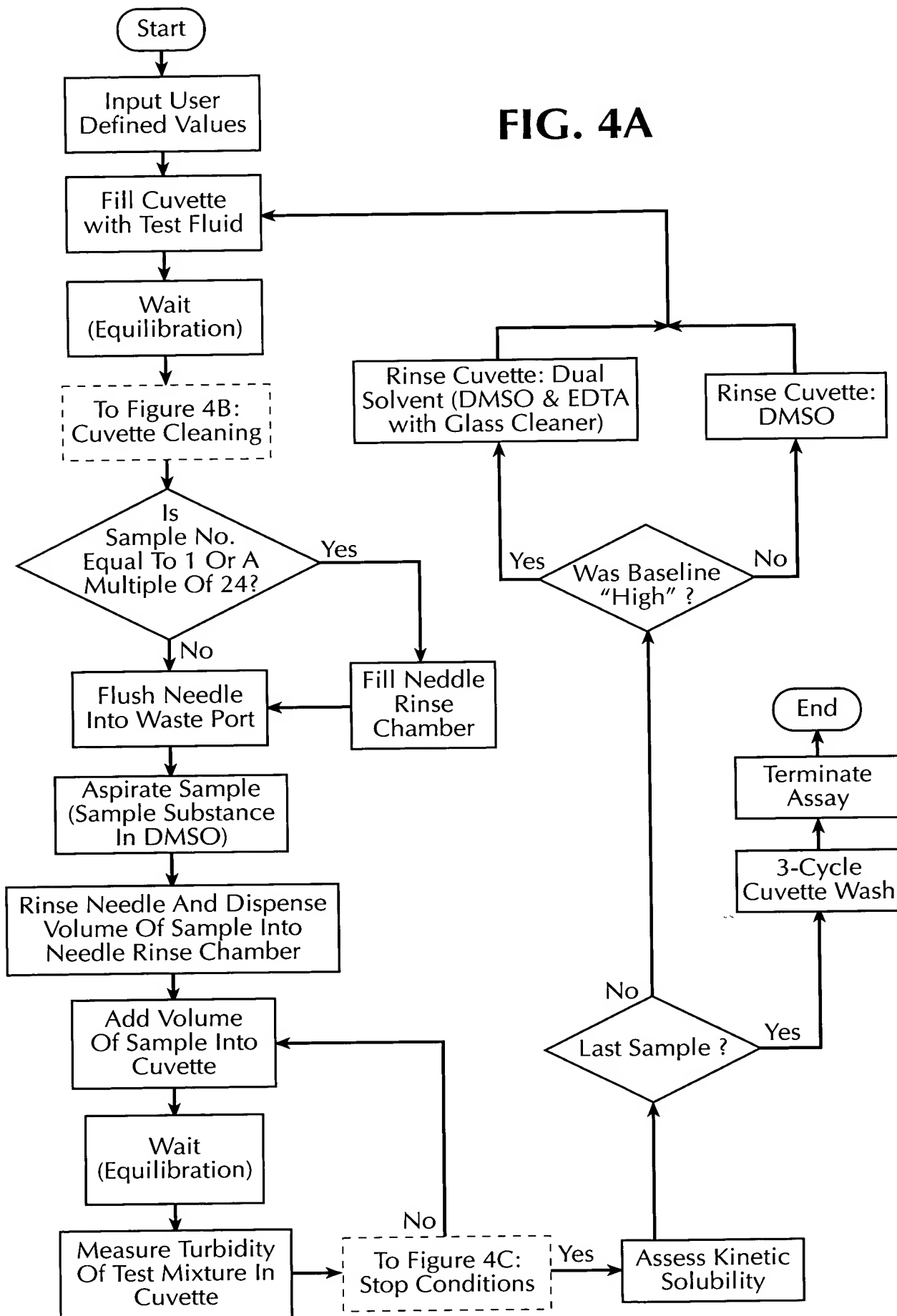
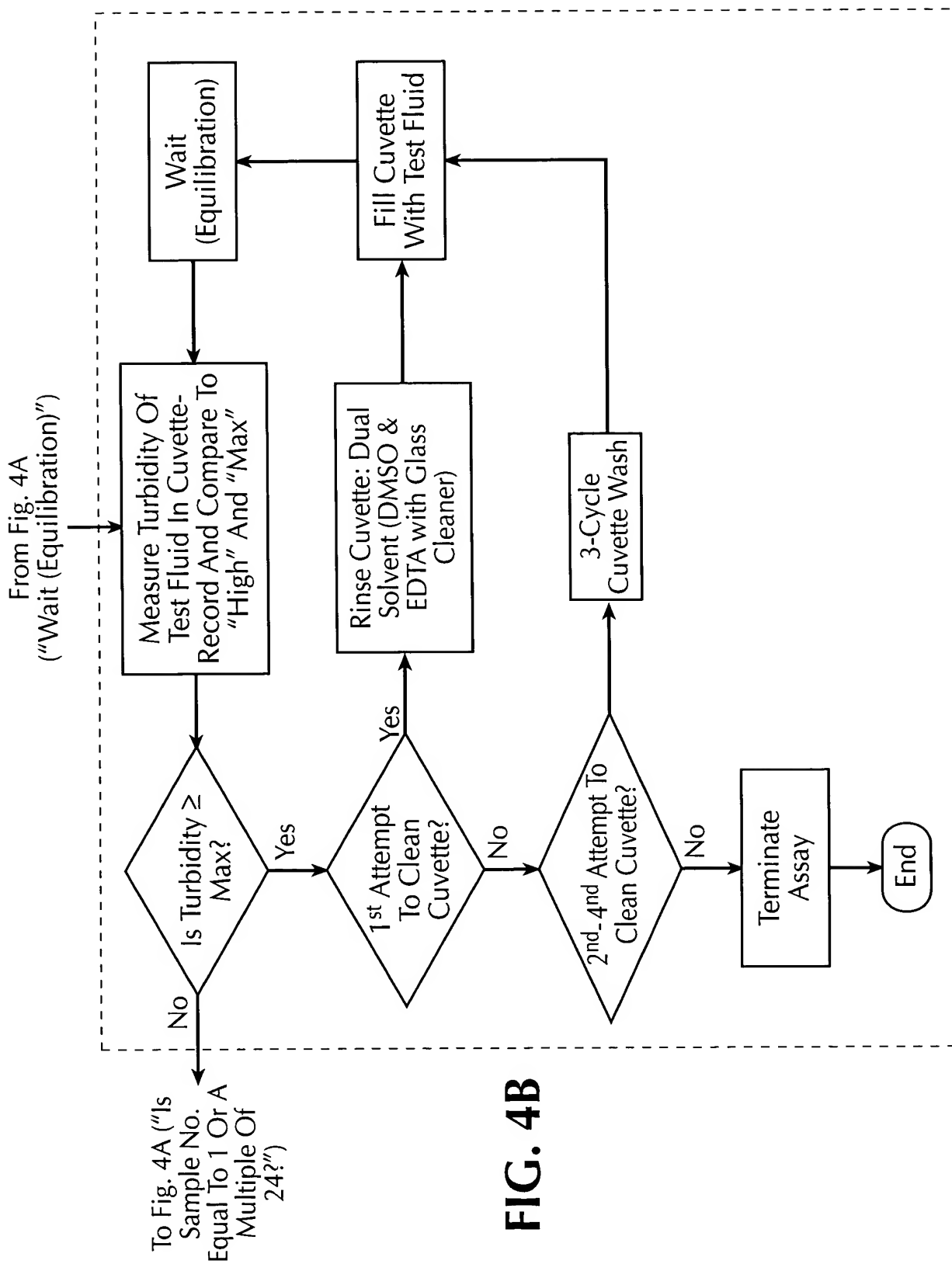
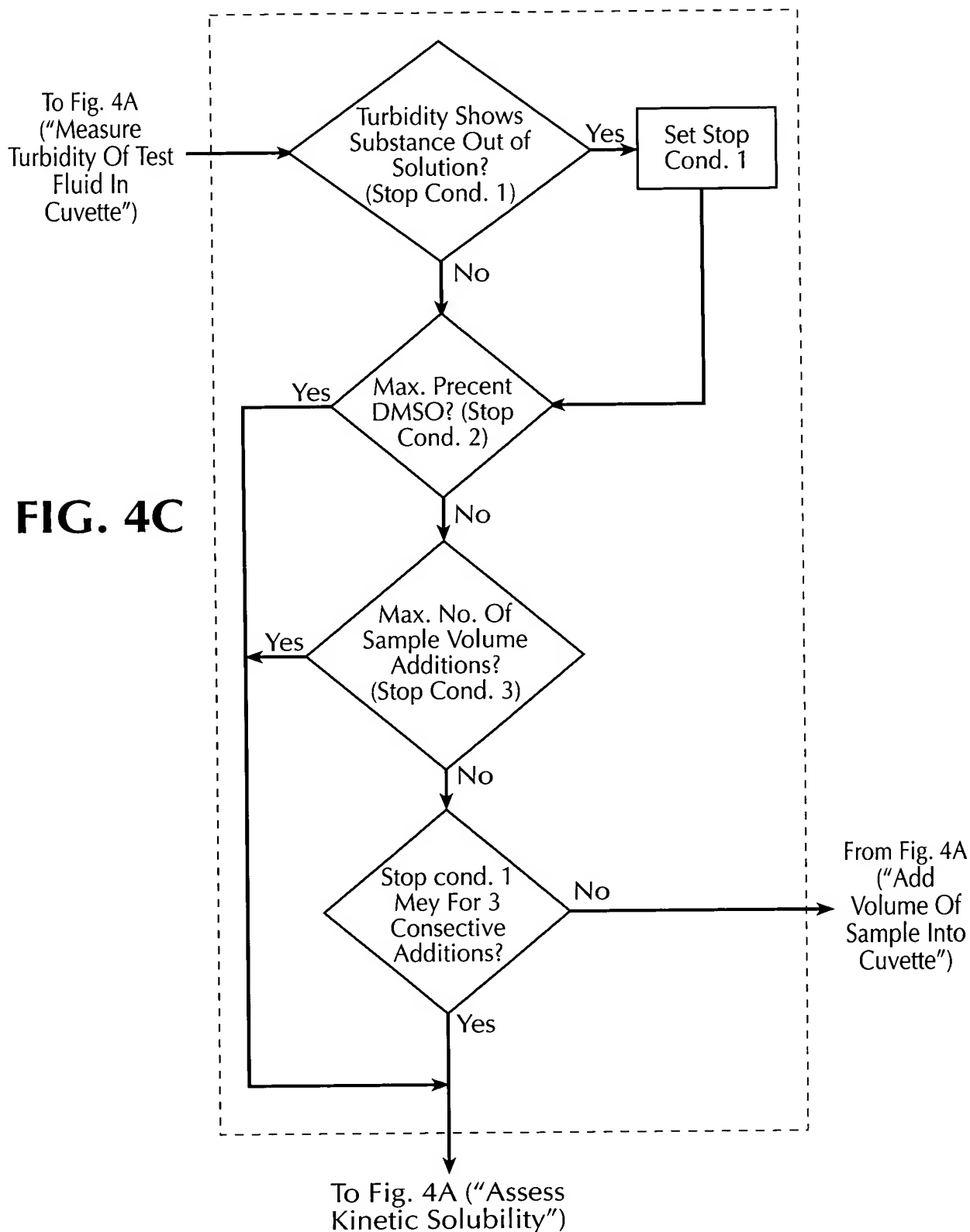
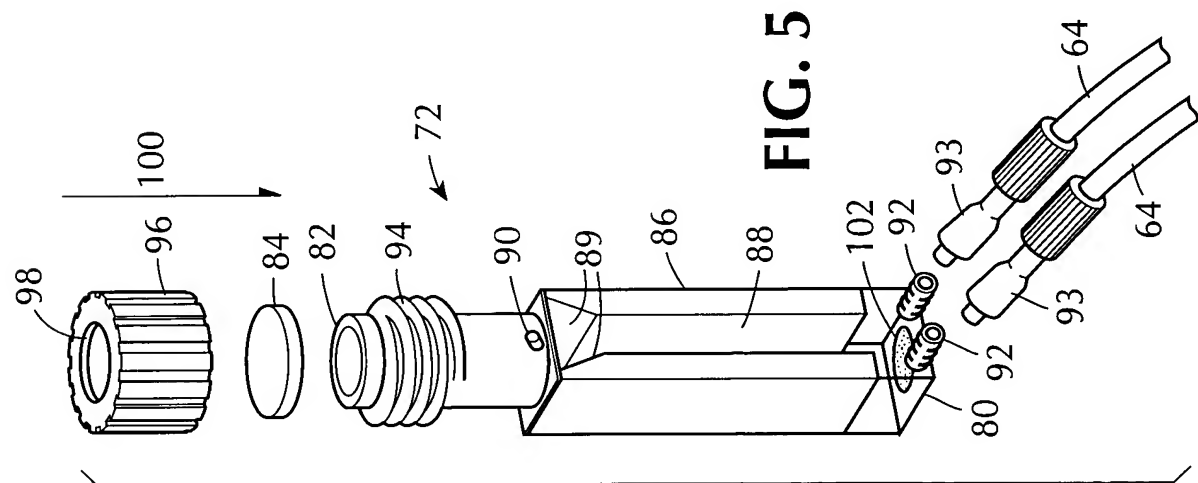
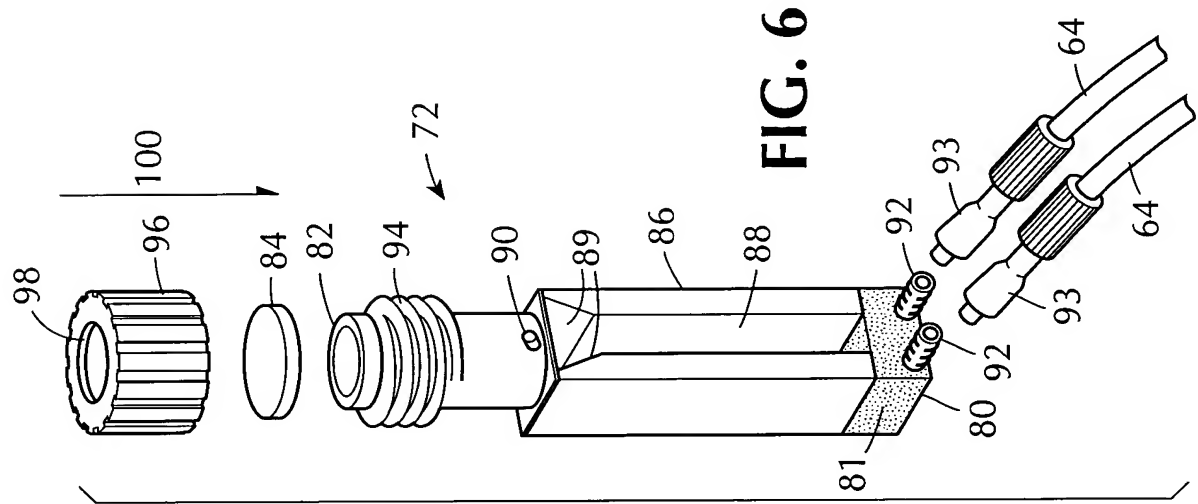
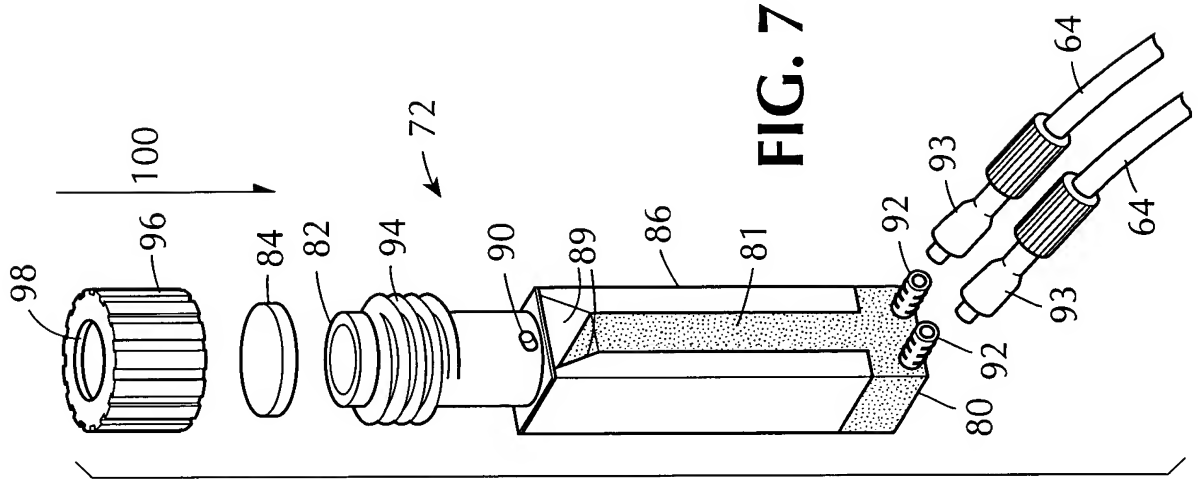


FIG. 4A









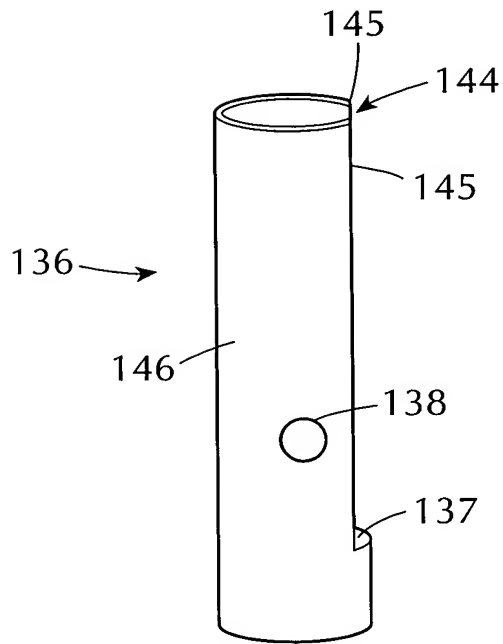


FIG. 8

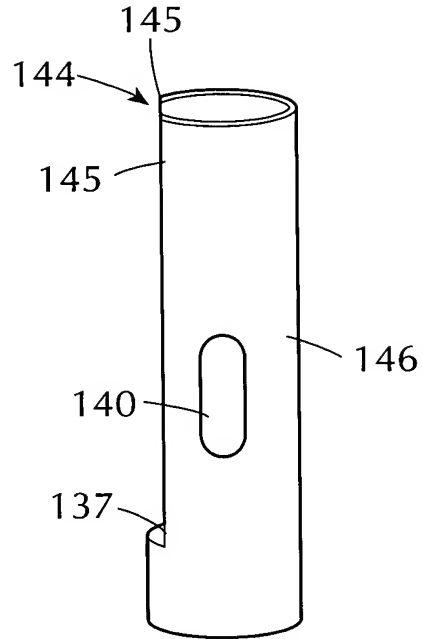


FIG. 9

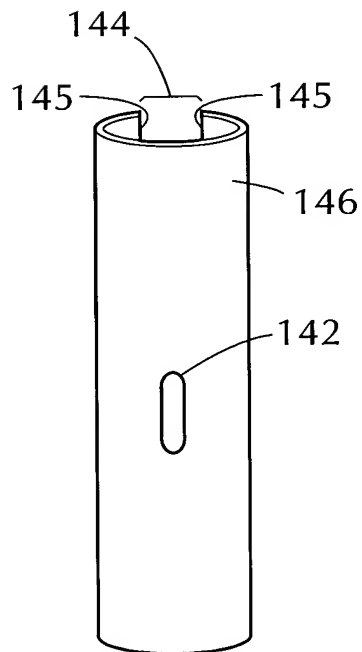


FIG. 10

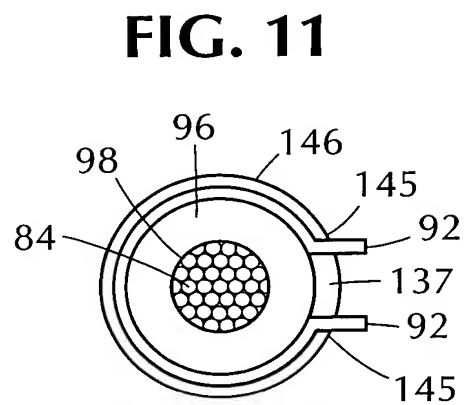


FIG. 11





FIG. 14

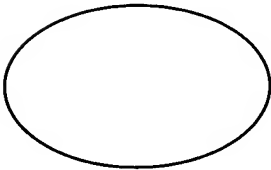


FIG. 15

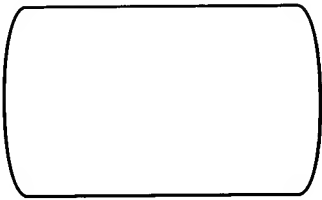


FIG. 12

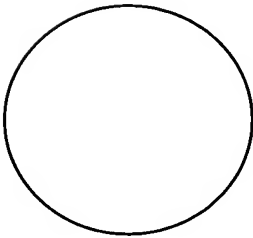


FIG. 13

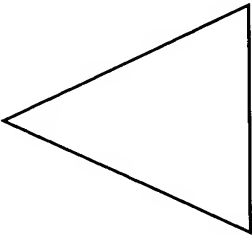


FIG. 16

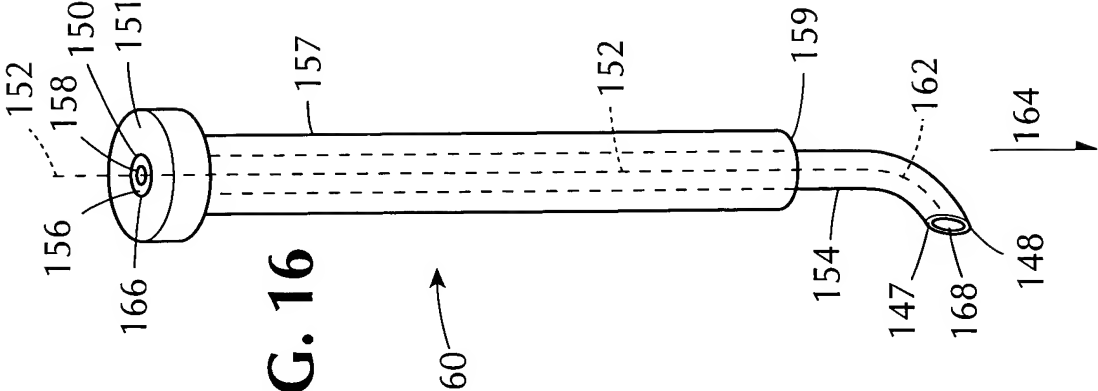




FIG. 18

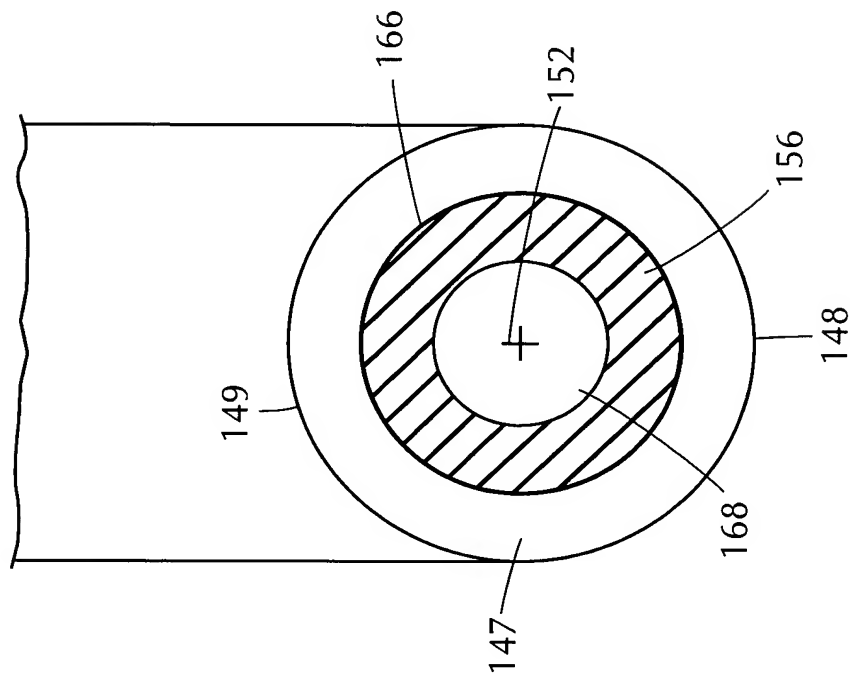
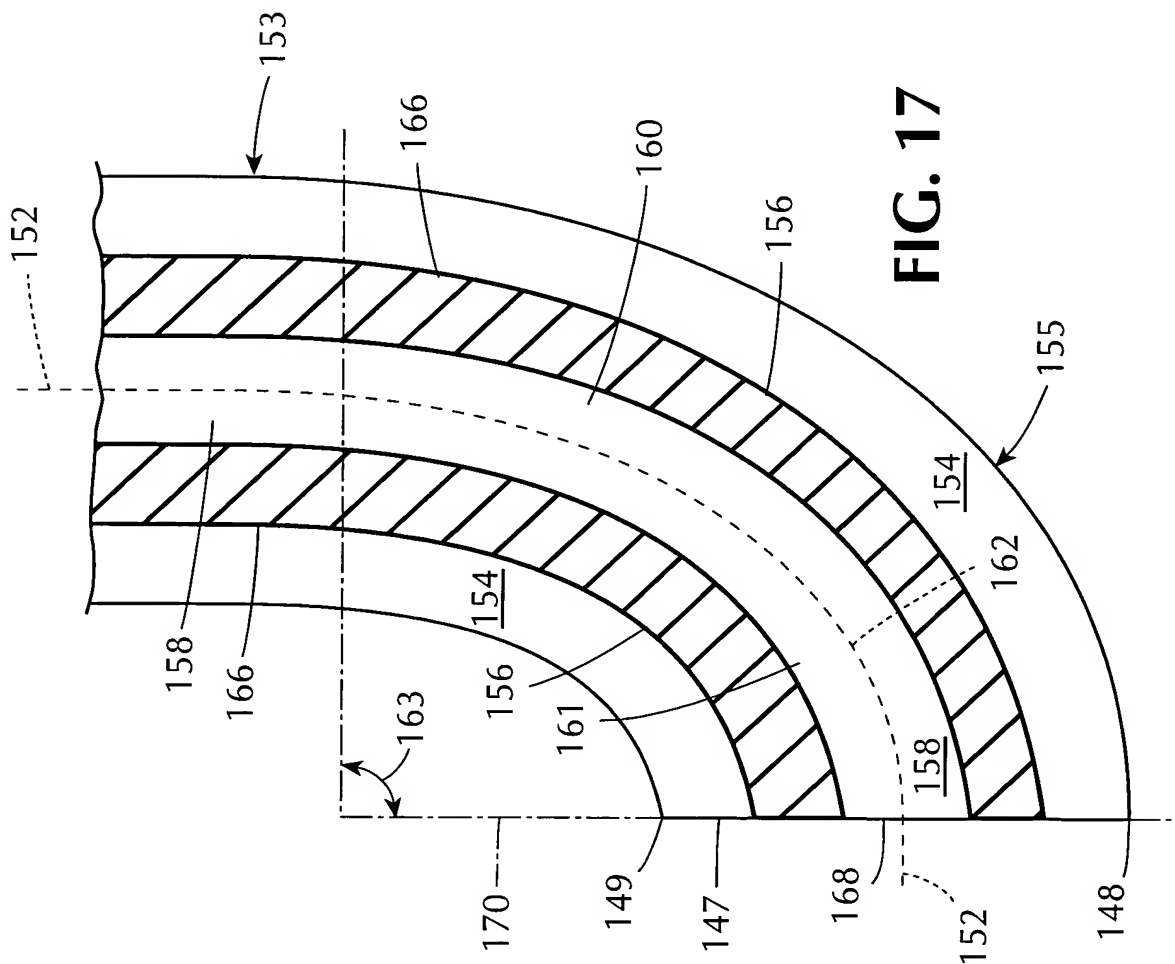


FIG. 17



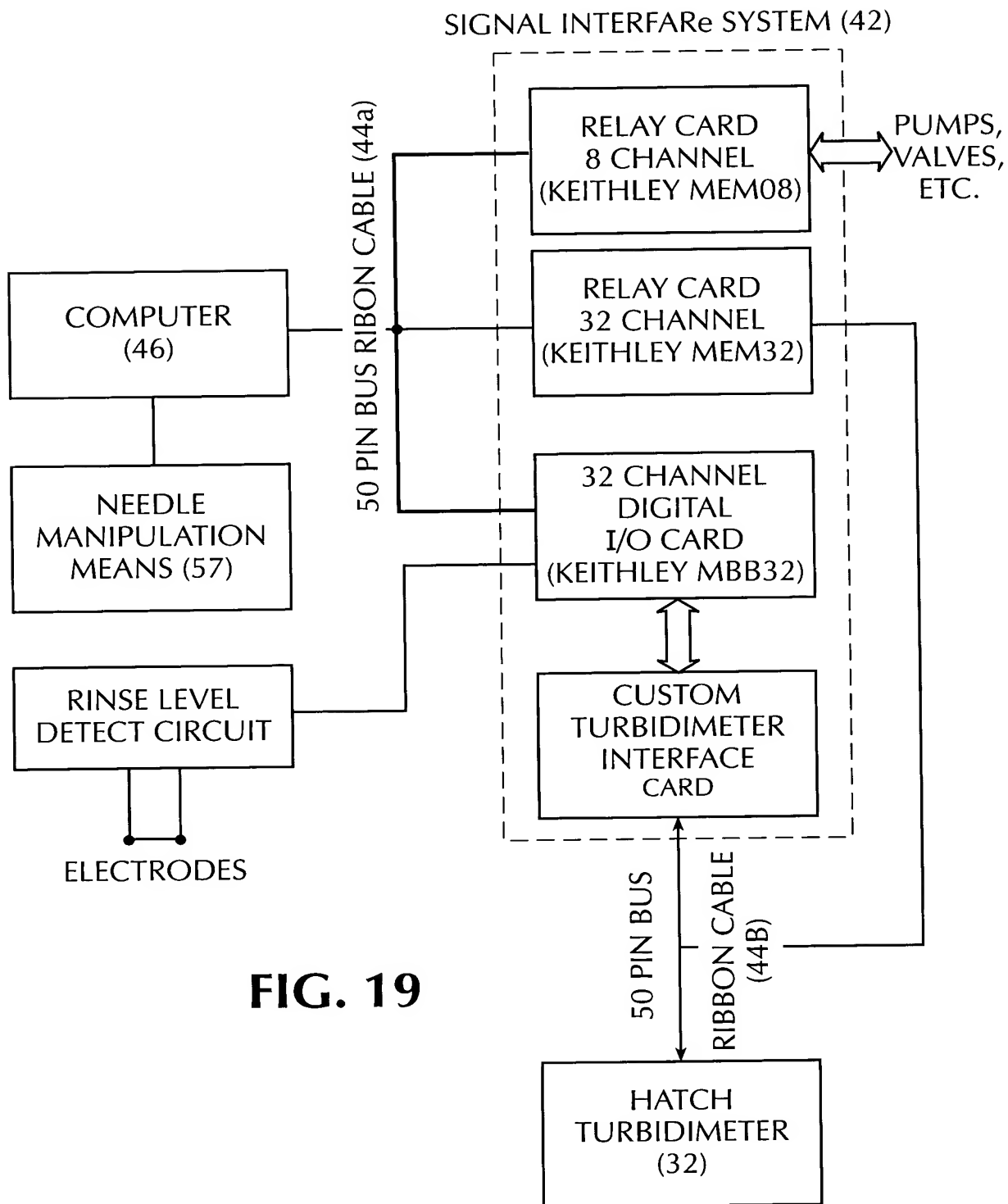


FIG. 19

FIG. 20

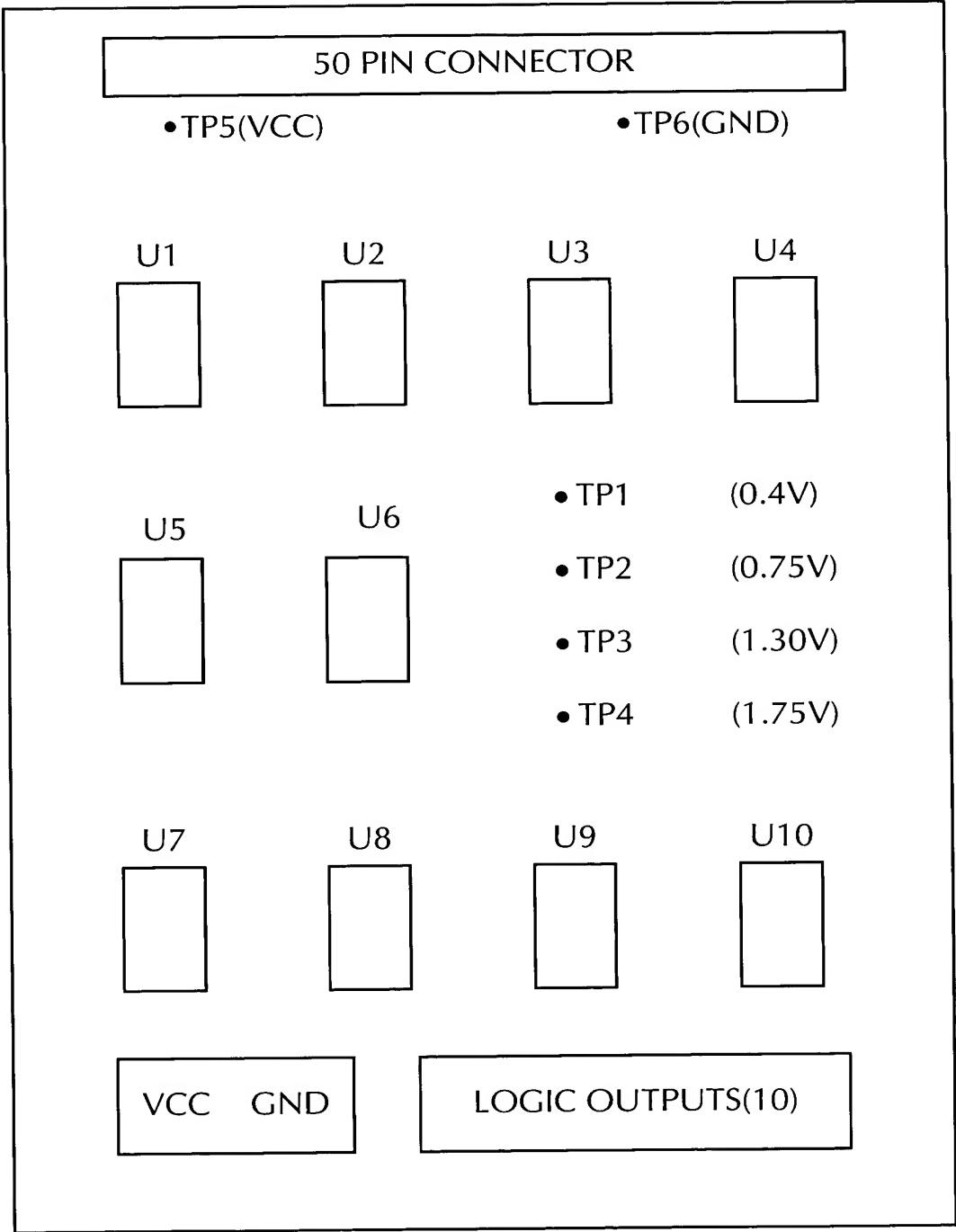


FIG. 21A

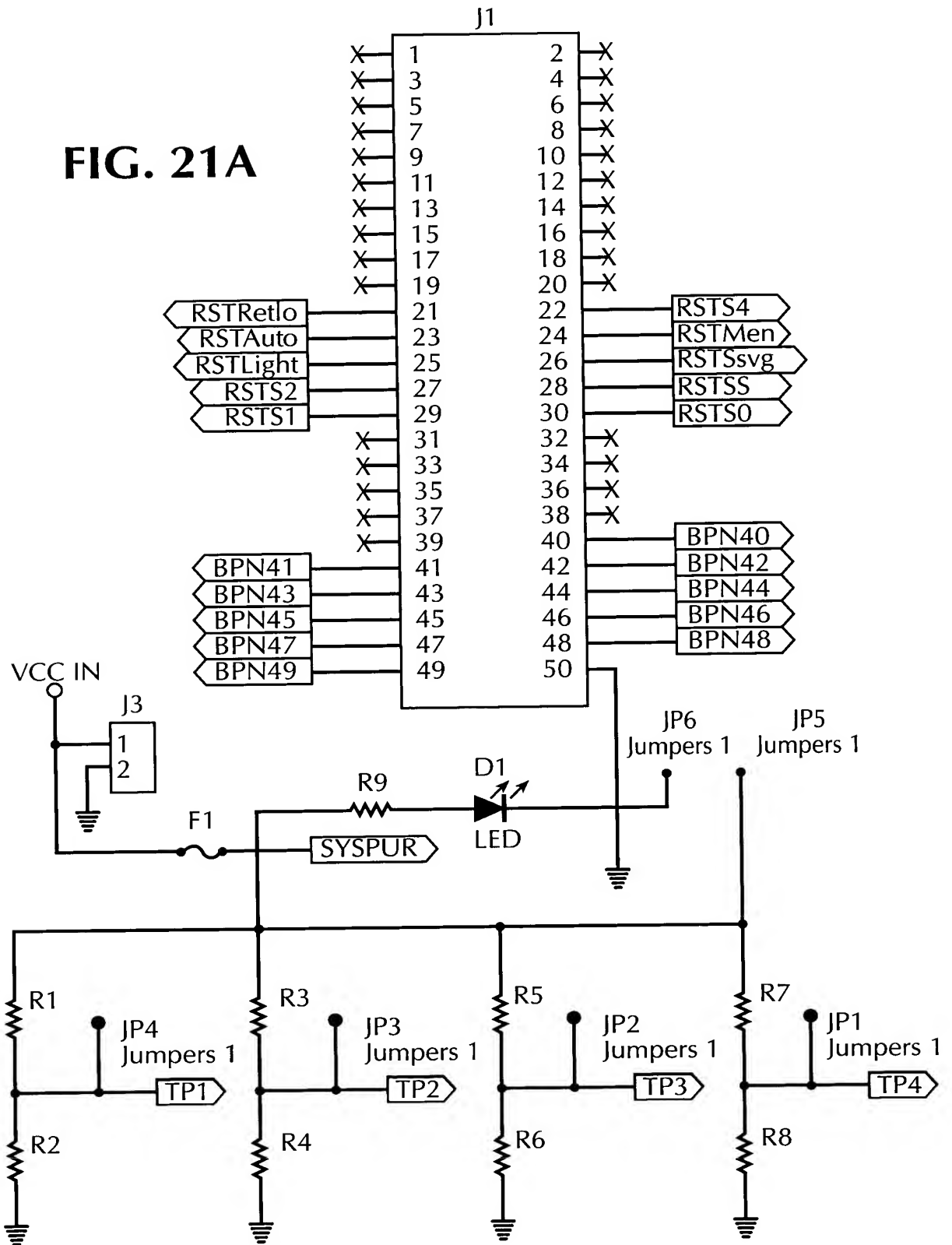


FIG. 21B

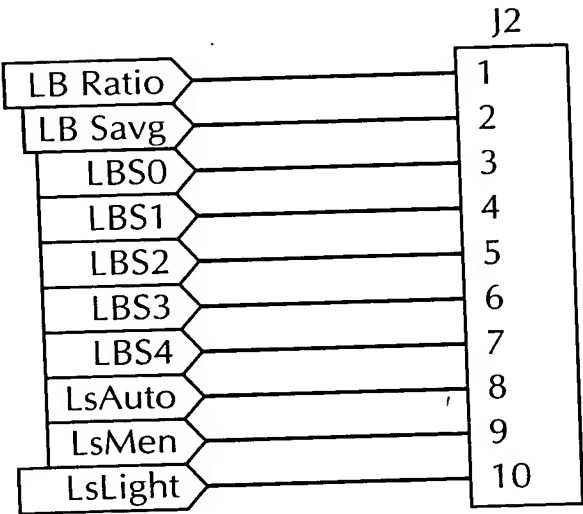


FIG. 22A

50-PIN BUS DEFINITIONS FOR LED INTERFACE CARD												
HACH 2100N Turbidimeter				INTERFACE BOARD					Keithley I/O Board			
LED Info	Wire Color	Bus Pin No.	IC#	Pin#	Vref	TestPt	R1	R2	Input No.	Board\$ +	Bit No.	
Ratio	GRN	45	U1	3	0.40 V	TP1	11.5K	1.0K	0	2	16	
Signal Avg	ORG	43	U6	3	1.3 V	TP3	2.85K	1.0K	5	2	21	
S0/CAL	YEL	44	U10	3	1.3 V	TP3	2.85K	1.0K	7	3	31	
S1	BRN	41	U9	3	1.75 V	TP4	1.85K	1.0K	6	3	30	
S2	BLK	40	U7	3	0.75 V	TP2	5.67K	1.0K	6	2	22	
S3	RED	42	U8	3	0.75 V	TP2	5.67K	1.0K	7	2	23	
S4	GRY	48	U2	3	0.40 V	TP1	11.5K	1.0K	1	2	17	
Auto Range	PUR	47	U3	3	0.40 V	TP1	11.5K	1.0K	2	2	18	
Manual Range	WHT	49	U4	3	0.40 V	TP1	11.5K	1.0K	3	2	19	
Light Bulb	BLU	46	U5	3	0.40 V	TP1	11.5K	1.0K	4	2	20	
Hach Gnd	BLK	50	n/a	3	n/a		n/a	n/a	n/a	n/a	n/a	

FIG. 22B

50-PIN BUS DEFINITIONS FOR LED INTERFACE CARD												
HACH 2100N Turbidimeter				INTERFACE BOARD						Keithley Relay Board		
Reset	Function	Bus Pin No.	IC#	Pin#	Color					Input	Board\$+	Bit No.
Reset No. 1	Ratio	21	U1	6,10	BLK					S7	3	31
Reset No. 2	S4	22	U2	6,10	WHT					S6	3	30
Reset No. 3	Auto Range	23	U3	6,10	GRY					S0	0	0
Reset No. 4	Manual Range	24	U4	6,10	PUR					S1	0	1
Reset No. 5	Light Bulb	25	U5	6,10	BLU					S2	0	2
Reset No. 6	Signal Avg	26	U6	6,10	GRN					S3	0	3
Reset No. 7	S2	27	U7	6,10	YEL					S4	0	4
Reset No. 8	S3	28	U8	6,10	ORG					S5	0	5
Reset No. 9	S1	29	U9	6,10	ORG					S6	0	6
Reset No. 10	S0/CAL	30	U10	6,10	BRN					S7	0	7

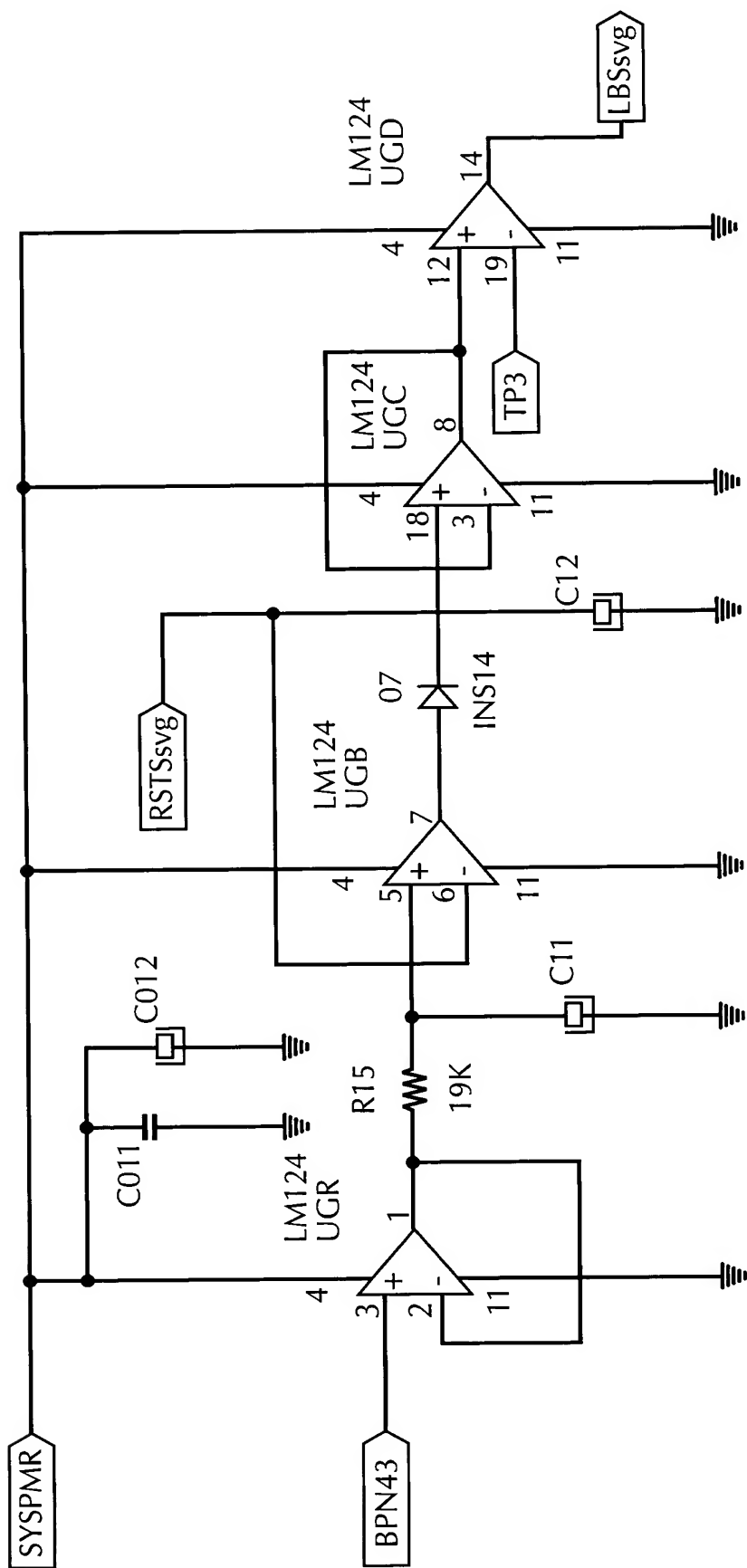


FIG. 23

FIG. 24

50 PIN BUS DEFINITIONS					
HACH 2100N Turbidimeter			Keithley Relay Board		
PIN No.	Wire Color	Switch Ctrl	Relay No.	Board\$ +	Bit No.
1	BLK	—	S0	2	16
2	WHT	—	S0	2	16
3	GRY	—	S1	2	17
4	PUR	—	S1	2	17
5	BLU	—	S2	2	18
6	GRN	—	S2	2	18
7	YEL	ENTER	S3	2	19
8	ORG	ENTER	S3	2	19
9	RED	CAL	S4	2	20
10	BRN	CAL	S4	2	20
11	BLK	SIGNAL AVG	S5	2	21
12	WHT	SIGNAL AVG	S5	2	21
13	GRY	PRINT	S6	2	22
14	PUR	PRINT	S6	2	22
15	BLU	RATIO	S7	2	23
16	GRN	RATIO	S7	2	23
17	YEL	RANGE	S0	3	24
18	ORG	RANGE	S0	3	24
19	RED	UNITS	S1	3	25
20	BRN	UNITS	S1	3	25

FIG. 25

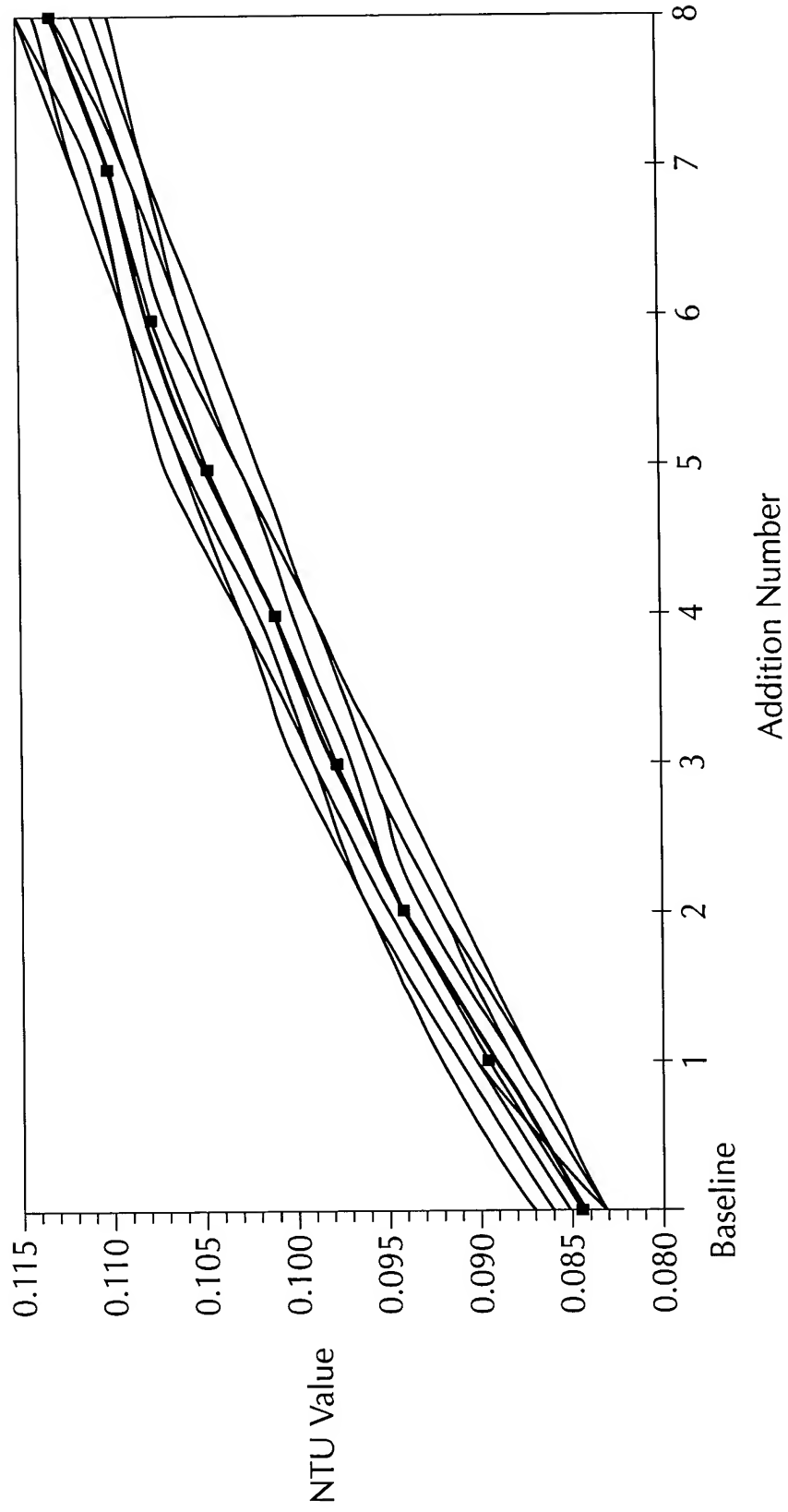


FIG. 26

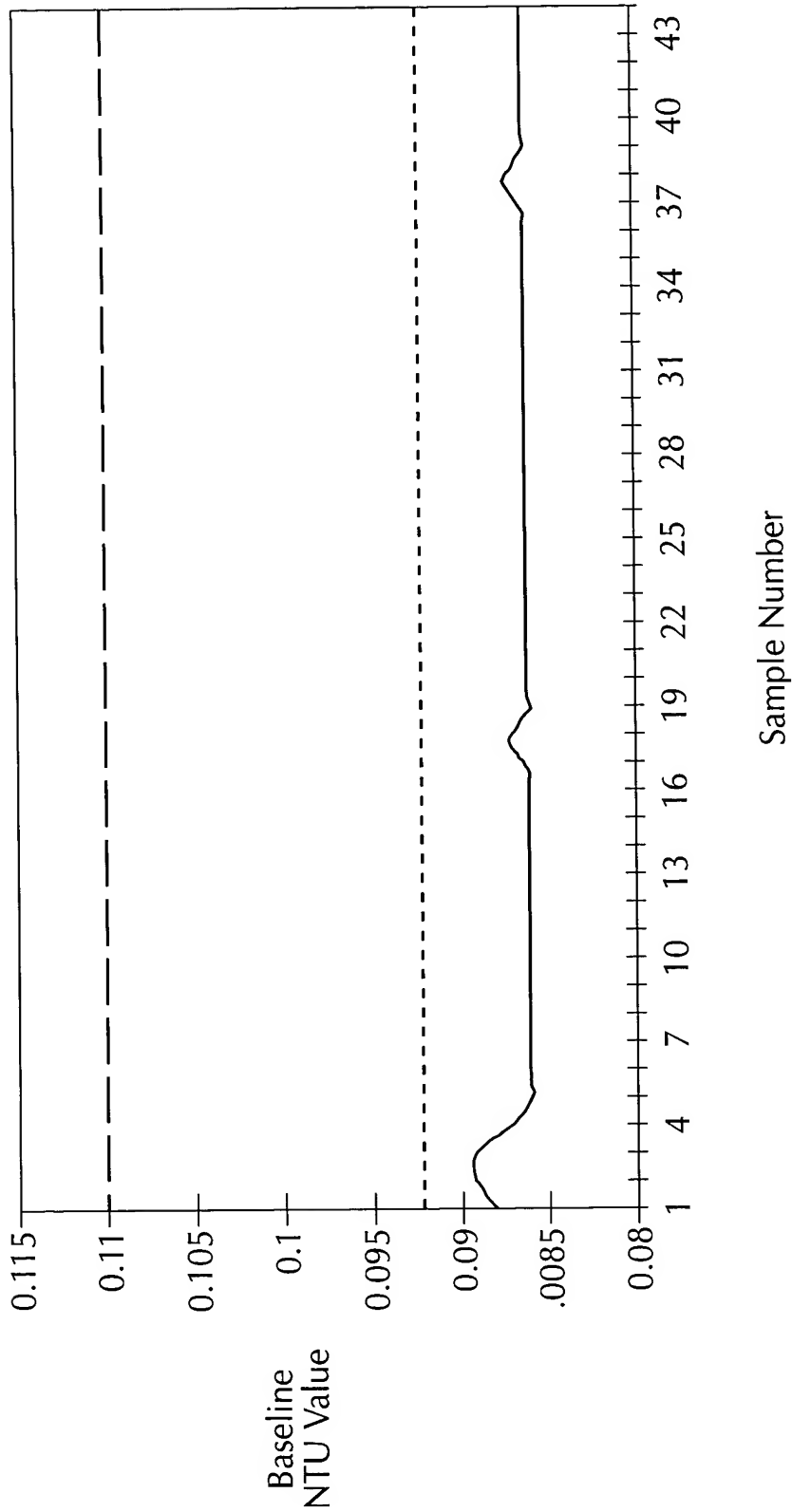


FIG. 27

